

CATHETER WITH FLUORESCENT TEMPERATURE SENSOR

ABSTRACT OF THE DISCLOSURE

A catheter with a fluorescent temperature sensor is shown and described.

The catheter includes a lumen, a fiber-optic cable that extends through the lumen. A distal end of the fiber-optic cable is coated with a fluorescent material and a proximal end of the fiber-optic cable is connected to a console. The console includes a light source for transmitting light through the fiber-optic cable for exciting the fluorescent material. The console further includes a photo multiplier tube for converting light emitted by the excited fluorescent material to a plurality of analogue voltage signals. The console further includes a digital oscilloscope linked to the photo multiplier tube for converting the plurality of analogue voltage signals to at least one digital signal. The console further includes a processor linked to the digital oscilloscope for converting the at least one digital signal to a temperature value for the distal end of the fiber-optic cable.

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